

[0146] As such, the processor 130, using various software modules stored in the storage 140 and based on information that relates to the external device received via the first input port 110, may control to automatically select a communication protocol that corresponds to the second input port 120 and communicate with the external device via the second input port 120 by using the selected communication protocol.

[0147] FIG. 12 is a flowchart to describe a method for controlling the display apparatus, according to an exemplary embodiment.

[0148] Referring to FIG. 12, a method of a display apparatus which includes a first input port configured to receive information that relates to the external device and a second input port configured to facilitate a communication with the external device and to receive a control command includes, as operation S1210, automatically selecting a communication protocol that corresponds to the second input port based on the information that relates to the external device received via the first input port.

[0149] In addition, the method includes, as operation S1220, controlling to communicate with the external device via the second input port by using the selected communication protocol.

[0150] In particular, the information that relates to the external device may include information that relates to at least one of a manufacturer of the external device, a name of the external device, and a product group of the external device.

[0151] In addition, information that relates to the external device may be stored in the SPD (Source Product Description) packet.

[0152] In addition, the SPD packet may include a plurality of fields which respectively indicate information that relates to a manufacturer, a name of a device, and a product group of the external device.

[0153] In addition, the first input port may be configured in accordance with the specification of HDMI (high definition multimedia interface).

[0154] In addition, the selecting may include selecting a communication protocol which is required for communicating with the external device from among a plurality of communication protocols that are prestored based on information that relates to the external device.

[0155] Further, the selecting may include receiving, from a server, information that relates to a communication protocol required for communicating with the external device based on information that relates to the external device, and the controlling may include communicating with the external device based on information that relates to a communication protocol received from a server.

[0156] Further, the controlling method of the display apparatus according to an exemplary embodiment may further include storing additional information that relates to a communication protocol received via a server and updating information that relates to a prestored plurality of communication protocols.

[0157] In addition, the second input port may be configured to use a UART (Universal Asynchronous Receiver Transmitter) communication method.

[0158] Further, a non-transitory computer readable medium which stores a program which sequentially performs the controlling method may be provided.

[0159] For example, a non-transitory computer readable medium may be configured to store a program which performs the step of automatically selecting a communication protocol that corresponds to the second input port based on information that relates to the external device received via the first input port and the step of controlling to communicate with the external device via the second input port by using the selected communication protocol.

[0160] The non-transitory recordable medium refers to a medium which may store data semi-permanently rather than storing data for a short time such as a register, a cache, and a memory, and may be readable by an apparatus. For example, the non-transitory readable medium may include any of a CD, DVD, hard disk, Blu-ray disk, USB, memory card, ROM, and/or any other suitable medium.

[0161] In addition, although some of the block diagrams illustrating the display apparatus do not include a bus, it will be understood by persons having ordinary skill in the art that communication among each element in the display apparatus can be performed via a bus. Further, each device may further include a processor, such as CPU, which is configured to perform the aforementioned various steps, and/or a microprocessor.

[0162] The foregoing exemplary embodiments and advantages are merely exemplary and are not to be construed as limiting the present inventive concept. The exemplary embodiments can be readily applied to other types of apparatuses. The description of the exemplary embodiments is intended to be illustrative, and not to limit the scope of the claims, and many alternatives, modifications, and variations will be apparent to those of ordinary skill in the art.

What is claimed is:

1. A display apparatus comprising:

- a first input port configured to receive information that relates to an external device;
- a second input port configured to facilitate a communication with the external device and to receive a control command; and
- a processor configured to automatically select a communication protocol that corresponds to the second input port based on the received information that relates to the external device, and to perform the communication with the external device via the second input port by using the selected communication protocol.

2. The display apparatus as claimed in claim 1, wherein the information that relates to the external device comprises at least one from among information that relates to a manufacturer of the external device, a name of the external device, and a product group that relates to the external device.

3. The display apparatus as claimed in claim 2, wherein the information that relates to the external device is stored in a source production description (SPD) packet.

4. The display apparatus as claimed in claim 3, wherein the SPD packet comprises a plurality of fields which respectively indicate the information that relates to the manufacturer of the external device, the name of the external device, and the product group that relates to the external device.

5. The display apparatus as claimed in claim 1, wherein the first input port is configured in accordance with a high definition multimedia interface (HDMI) specification.

6. The display apparatus as claimed in claim 1, further comprising: